Statement of Basis of the Federal Operating Permit

Ennis Power Company, LLC

Site Name: Ennis Power
Physical Location: 4001 W Ennis Ave
Nearest City: Ennis
County: Ellis

Permit Number: O2149 Project Type: Renewal

The North American Industry Classification System (NAICS) Code: 221112

NAICS Name: Fossil Fuel Electric Power Generation

This Statement of Basis sets forth the legal and factual basis for the draft permit conditions in accordance with 30 TAC §122.201(a)(4). Per 30 TAC §§ 122.241 and 243, the permit holder has submitted an application under § 122.134 for permit renewal. This document includes the following information:

A description of the facility/area process description;

A basis for applying permit shields;

A list of the federal regulatory applicability determinations;

A table listing the determination of applicable requirements;

A list of the New Source Review Requirements;

The rationale for periodic monitoring methods selected;

The rationale for compliance assurance methods selected;

A compliance status; and

A list of available unit attribute forms.

Prepared on: June 21, 2018

Operating Permit Basis of Determination

Permit Area Process Description

Ennis produces electricity for distribution. The plant consists of a natural gas-fired combustion turbine and an unfired heat recovery steam generator (HRSG) with the total nominal output of 350 MW.

Natural gas is combined with ambient air and burned in the gas turbine combustion chamber. The exiting hot exhaust gases rotate the turbine shaft, which in turn drives the generator to produce electric power for distribution. The facility operates a Siemens Westinghouse 501G gas turbine (GT) and ancillary equipment. The GT produces 230 MW and the steam turbine (ST) produces the remaining 120 MW. The unit is a merchant marketed facility and expected to operate for approximately 5500 hours per year.

Good combustion practice is employed to minimize emissions of carbon monoxide (CO), volatile organic chemicals (VOC), sulfur dioxide (SO₂), and particulate matter (PM). A selective catalytic reduction (SCR) is used to reduce emissions of nitrogen oxides (NO_x). The SCR involves injecting aqueous ammonia into the turbine's exhaust stream ahead of the SCR catalyst. Current emission limits for NO_x, CO, and ammonia (NH₃), are 9 parts per million (ppm), 20 ppm, and 10 ppm, respectively, based on a 1-hour average. NO_x, CO, and NH₃ are continually monitored by a continuous emission monitoring system (CEMS). VOC is permitted to emit 2 ppm and is monitored by periodic stack testing. SO₂ is limited to 19.33 pounds per hour (lb/hr) and is monitored by periodically testing the sulfur fuel content.

The exhaust gases pass through the HRSG where boiler feed water is converted into steam. The steam is routed to the steam generator to generate additional electric power. Utility water is demineralized using an on-site water treatment system. The demineralized water is routed to the HRSG for steam production. The steam is cooled to the liquid phase in a condenser and then sent to the cooling tower.

FOPs at Site

The "application area" consists of the emission units and that portion of the site included in the application and this permit. Multiple FOPs may be issued to a site in accordance with 30 TAC § 122.201(e). When there is only one area for the site, then the application information and permit will include all units at the site. Additional FOPs that exist at the site, if any, are listed below.

Additional FOPs: None

Major Source Pollutants

The table below specifies the pollutants for which the site is a major source:

Major Pollutants PM	M, NO _X , CO
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Reading State of Texas's Federal Operating Permit

The Title V Federal Operating Permit (FOP) lists all state and federal air emission regulations and New Source Review (NSR) authorizations (collectively known as "applicable requirements") that apply at a particular site or permit area (in the event a site has multiple FOPs). **The FOP does not authorize new emissions or new construction activities.** The FOP begins with an introductory page which is common to all Title V permits. This page gives the details of the company, states the authority of the issuing agency, requires the company to operate in accordance with this permit and 30 Texas Administrative Code (TAC) Chapter 122, requires adherence with NSR requirements of 30 TAC Chapter 116, and finally indicates the permit number and the issuance date.

This is followed by the table of contents, which is generally composed of the following elements. Not all permits will have all of the elements.

- General Terms and Conditions
- Special Terms and Conditions
 - Emissions Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting
 - Additional Monitoring Requirements
 - New Source Review Authorization Requirements
 - o Compliance Requirements
 - o Protection of Stratosphere Ozone
 - Permit Location
 - Permit Shield (30 TAC § 122.148)
- Attachments
 - Applicable Requirements Summary
 - Unit Summary
 - Applicable Requirements Summary
 - Additional Monitoring Requirements
 - Permit Shield
 - New Source Review Authorization References
 - Compliance Plan
 - Alternative Requirements
- Appendix A
 - Acronym list
- Appendix B
 - o Copies of major NSR authorizations

General Terms and Conditions

The General Terms and Conditions are the same and appear in all permits. The first paragraph lists the specific citations for 30 TAC Chapter 122 requirements that apply to all Title V permit holders. The second paragraph describes the requirements for record retention. The third paragraph provides details for voiding the permit, if applicable. The fourth paragraph states that the permit holder shall comply with the requirements of 30 TAC Chapter 116 by obtaining a New Source Review authorization prior to new construction or modification of emission units located in the area covered by this permit. The fifth paragraph provides details on submission of reports required by the permit.

Special Terms and Conditions

Emissions Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting. The TCEQ has designated certain applicable requirements as site-wide requirements. A site-wide requirement is a requirement that applies uniformly to all the units or activities at the site. Units with only site-wide requirements are addressed on Form OP-REQ1 and are not required to be listed separately on a OP-UA Form or Form OP-SUM. Form OP-SUM must list all units addressed in the application and provide identifying information, applicable OP-UA Forms, and preconstruction authorizations. The various OP-UA Forms provide the characteristics of each unit from which applicable requirements are established. Some exceptions exist as a few units may have both site-wide requirements and unit specific requirements.

Other conditions. The other entries under special terms and conditions are in general terms referring to compliance with the more detailed data listed in the attachments.

Attachments

Applicable Requirements Summary. The first attachment, the Applicable Requirements Summary, has two tables, addressing unit specific requirements. The first table, the Unit Summary, includes a list of units with applicable requirements, the unit type, the applicable regulation, and the requirement driver. The intent of the requirement driver is to inform the reader that a given unit may have several different operating scenarios and the differences between those operating scenarios.

The applicable requirements summary table provides the detailed citations of the rules that apply to the various units. For each unit and operating scenario, there is an added modifier called the "index number," detailed citations specifying

monitoring and testing requirements, recordkeeping requirements, and reporting requirements. The data for this table are based on data supplied by the applicant on the OP-SUM and various OP-UA forms.

Additional Monitoring Requirement. The next attachment includes additional monitoring the applicant must perform to ensure compliance with the applicable standard. Compliance assurance monitoring (CAM) is often required to provide a reasonable assurance of compliance with applicable emission limitations/standards for large emission units that use control devices to achieve compliance with applicant requirements. When necessary, periodic monitoring (PM) requirements are specified for certain parameters (i.e. feed rates, flow rates, temperature, fuel type and consumption, etc.) to determine if a term and condition or emission unit is operating within specified limits to control emissions. These additional monitoring approaches may be required for two reasons. First, the applicable rules do not adequately specify monitoring requirements (exception- Maximum Achievable Control Technology Standards (MACTs) generally have sufficient monitoring), and second, monitoring may be required to fill gaps in the monitoring requirements of certain applicable requirements. In situations where the NSR permit is the applicable requirement requiring extra monitoring for a specific emission unit, the preferred solution is to have the monitoring requirements in the NSR permit updated so that all NSR requirements are consolidated in the NSR permit.

Permit Shield. A permit may or may not have a permit shield, depending on whether an applicant has applied for, and justified the granting of, a permit shield. A permit shield is a special condition included in the permit document stating that compliance with the conditions of the permit shall be deemed compliance with the specified potentially applicable requirement(s) or specified applicable state-only requirement(s).

New Source Review Authorization References. All activities which are related to emissions in the state of Texas must have a NSR authorization prior to beginning construction. This section lists all units in the permit and the NSR authorization that allowed the unit to be constructed or modified. Units that do not have unit specific applicable requirements other than the NSR authorization do not need to be listed in this attachment. While NSR permits are not physically a part of the Title V permit, they are legally incorporated into the Title V permit by reference. Those NSR permits whose emissions exceed certain PSD/NA thresholds must also undergo a Federal review of federally regulated pollutants in addition to review for state regulated pollutants.

Compliance Plan. A permit may have a compliance schedule attachment for listing corrective actions plans for any emission unit that is out of compliance with an applicable requirement.

Alternative Requirements. This attachment will list any alternative monitoring plans or alternative means of compliance for applicable requirements that have been approved by the EPA Administrator and/or the TCEQ Executive Director.

Appendix A

Acronym list. This attachment lists the common acronyms used when discussing the FOPs.

Appendix B

Copies of major NSR authorizations applicable to the units covered by this permit have been included in this Appendix, to ensure that all interested persons can access those authorizations.

Stationary vents subject to 30 TAC Chapter 111, Subchapter A, § 111.111(a)(1)(B) addressed in the Special Terms and Conditions

The site contains stationary vents with a flowrate less than 100,000 actual cubic feet per minute (acfm) and constructed after January 31, 1972 which are limited, over a six-minute average, to 20% opacity as required by 30 TAC § 111.111(a)(1)(B). As a site may have a large number of stationary vents that fall into this category, they are not required to be listed individually in the permit's Applicable Requirement Summary. This is consistent with EPA's White Paper for Streamlined Development of Part 70 Permit Applications, July 10, 1995, that states that requirements that apply identically to emission units at a site can be treated on a generic basis such as source-wide opacity limits.

Periodic monitoring is specified in Special Term and Condition 3 for stationary vents subject to 30 TAC § 111.111(a)(1)(B) to verify compliance with the 20% opacity limit. These vents are not expected to produce visible emissions during normal operation. The TCEQ evaluated the probability of these sources violating the opacity standards and determined that there

is a very low potential that an opacity standard would be exceeded. It was determined that continuous monitoring for these sources is not warranted as there would be very limited environmental benefit in continuously monitoring sources that have a low potential to produce visible emissions. Therefore, the TCEQ set the visible observation monitoring frequency for these sources to once per calendar quarter.

The TCEQ has exempted vents that are not capable of producing visible emissions from periodic monitoring requirements. These vents include sources of colorless VOCs, non-fuming liquids, and other materials that cannot produce emissions that obstruct the transmission of light. Passive ventilation vents, such as plumbing vents, are also included in this category. Since this category of vents are not capable of producing opacity due to the physical or chemical characteristics of the emission source, periodic monitoring is not required as it would not yield any additional data to assure compliance with the 20% opacity standard of 30 TAC § 111.111(a)(1)(B).

In the event that visible emissions are detected, either through the quarterly observation or other credible evidence, such as observations from company personnel, the permit holder shall either report a deviation or perform a Test Method 9 observation to determine the opacity consistent with the 6-minute averaging time specified in 30 TAC § 111.111(a)(1)(B). An additional provision is included to monitor combustion sources more frequently than quarterly if alternate fuels are burned for periods greater than 24 consecutive hours. This will address possible emissions that may arise when switching fuel types.

Stationary Vents subject to 30 TAC Chapter 111 not addressed in the Special Terms and Conditions

All other stationary vents subject to 30 TAC Chapter 111 not covered in the Special Terms and Conditions are listed in the permit's Applicable Requirement Summary. The basis for the applicability determinations for these vents are listed in the Determination of Applicable Requirements table.

Federal Regulatory Applicability Determinations

The following chart summarizes the applicability of the principal air pollution regulatory programs to the permit area:

Regulatory Program	Applicability (Yes/No)
Prevention of Significant Deterioration (PSD)	Yes
Nonattainment New Source Review (NNSR)	No
Minor NSR	Yes
40 CFR Part 60 - New Source Performance Standards	Yes
40 CFR Part 61 - National Emission Standards for Hazardous Air Pollutants (NESHAPs)	No
40 CFR Part 63 - NESHAPs for Source Categories	Yes
Title IV (Acid Rain) of the Clean Air Act (CAA)	Yes
Title V (Federal Operating Permits) of the CAA	Yes
Title VI (Stratospheric Ozone Protection) of the CAA	Yes
CSAPR (Cross-State Air Pollution Rule)	Yes

Basis for Applying Permit Shields

An operating permit applicant has the opportunity to specifically request a permit shield to document that specific applicable requirements do not apply to emission units in the permit. A permit shield is a special condition stating that compliance with the conditions of the permit shall be deemed compliance with the specified potentially applicable requirements or specified potentially applicable state-only requirements. A permit shield has been requested in the application for specific emission units. For the permit shield requests that have been approved, the basis of determination for regulations that the owner/operator need not comply with are located in the "Permit Shield" attachment of the permit.

Acid Rain Permit

The permitted area is subject to Federal Clean Air Act Title IV Acid Rain rules for Phase II units, as codified in 40 CFR Parts 72 through 78, because it meets the definition of "affected source." Applicability of affected sources are defined in 40 CFR § 72.6 and include those sources that burn fossil fuel, and generates electricity for sale. Under 40 CFR Part 72, incorporated by reference into 30 TAC Chapter 122, all acid rain permits must contain specific terms and conditions, including monitoring, reporting, recordkeeping and excess emission requirements, established by the U.S. EPA. The Title IV permitting procedures are described within 30 TAC Chapter 122, Subchapter E. The applicable requirements of the Acid Rain Permit are contained in the Special Terms and Conditions of the FOP. The Acid Rain permit is effective as of the date of the issuance of the FOP and has a term ending in concurrence with the FOP.

Cross-State Air Pollution Rule

The Cross-State Air Pollution Rule (CSAPR) was established to mitigate the interstate transport of NO_x and SO_2 which contribute to the formation of fine particles (PM 2.5) and ground-level ozone and has replaced the previous Clean Air Interstate Rule (CAIR) program. The EPA has promulgated a model cap and trade program in 40 CFR Part 97 to implement CSAPR. This rule has been adopted by reference into 30 TAC Chapter 122 as part of an effective rulemaking (Rule Project No. 2016-012-122-AI), which included the repeal of 30 TAC Chapter 122, Subchapter E, Division 2: Clean Air Interstate Rule.

The permitted area is subject to CSAPR as it contains units that meet a definition of a CSAPR unit in 40 CFR Part 97 (CSAPR NO_x and SO₂ Trading Programs). The applicable CSAPR requirements are contained in the Special Terms and Conditions of the FOP.

Insignificant Activities

In general, units not meeting the criteria for inclusion on either Form OP-SUM or Form OP-REQ1 are not required to be addressed in the operating permit application. Examples of these types of units include, but are not limited to, the following:

- 1. Office activities such as photocopying, blueprint copying, and photographic processes.
- 2. Sanitary sewage collection and treatment facilities other than those used to incinerate wastewater treatment plant sludge. Stacks or vents for sanitary sewer plumbing traps are also included.
- 3. Food preparation facilities including, but not limited to, restaurants and cafeterias used for preparing food or beverages primarily for consumption on the premises.
- 4. Outdoor barbecue pits, campfires, and fireplaces.
- 5. Laundry dryers, extractors, and tumblers processing bedding, clothing, or other fabric items generated primarily at the premises. This does not include emissions from dry cleaning systems using perchloroethylene or petroleum solvents.
- 6. Facilities storing only dry, sweet natural gas, including natural gas pressure regulator vents.
- 7. Any air separation or other industrial gas production, storage, or packaging facility. Industrial gases, for purposes of this list, include only oxygen, nitrogen, helium, neon, argon, krypton, and xenon.
- 8. Storage and handling of sealed portable containers, cylinders, or sealed drums.
- 9. Vehicle exhaust from maintenance or repair shops.
- 10. Storage and use of non-VOC products or equipment for maintaining motor vehicles operated at the site (including but not limited to, antifreeze and fuel additives).
- 11. Air contaminant detectors and recorders, combustion controllers and shut-off devices, product analyzers, laboratory analyzers, continuous emissions monitors, other analyzers and monitors, and emissions associated

- with sampling activities. Exception to this category includes sampling activities that are deemed fugitive emissions and under a regulatory leak detection and repair program.
- 12. Bench scale laboratory equipment and laboratory equipment used exclusively for chemical and physical analysis, including but not limited to, assorted vacuum producing devices and laboratory fume hoods.
- 13. Steam vents, steam leaks, and steam safety relief valves, provided the steam (or boiler feedwater) has not contacted other materials or fluids containing regulated air pollutants other than boiler water treatment chemicals.
- 14. Storage of water that has not contacted other materials or fluids containing regulated air pollutants other than boiler water treatment chemicals.
- 15. Well cellars.
- 16. Fire or emergency response equipment and training, including but not limited to, use of fire control equipment including equipment testing and training, and open burning of materials or fuels associated with firefighting training.
- 17. Crucible or pot furnaces with a brim full capacity of less than 450 cubic inches of any molten metal.
- 18. Equipment used exclusively for the melting or application of wax.
- 19. All closed tumblers used for the cleaning or deburring of metal products without abrasive blasting, and all open tumblers with a batch capacity of 1,000 lbs. or less.
- 20. Shell core and shell mold manufacturing machines.
- 21. Sand or investment molds with a capacity of 100 lbs. or less used for the casting of metals;
- 22. Equipment used for inspection of metal products.
- 23. Equipment used exclusively for rolling, forging, pressing, drawing, spinning, or extruding either hot or cold metals by some mechanical means.
- 24. Instrument systems utilizing air, natural gas, nitrogen, oxygen, carbon dioxide, helium, neon, argon, krypton, and xenon.
- 25. Battery recharging areas.
- 26. Brazing, soldering, or welding equipment.

Determination of Applicable Requirements

The tables below include the applicability determinations for the emission units, the index number(s) where applicable, and all relevant unit attribute information used to form the basis of the applicability determination. The unit attribute information is a description of the physical properties of an emission unit which is used to determine the requirements to which the permit holder must comply. For more information about the descriptions of the unit attributes specific Unit Attribute Forms may be viewed at www.tceq.texas.gov/permitting/air/nav/air_all_ua_forms.html.

A list of unit attribute forms is included at the end of this document. Some examples of unit attributes include construction date; product stored in a tank; boiler fuel type; etc.. Generally, multiple attributes are needed to determine the requirements for a given emission unit and index number. The table below lists these attributes in the column entitled "Basis of Determination." Attributes that demonstrate that an applicable requirement applies will be the factual basis for the specific citations in an applicable requirement that apply to a unit for that index number. The TCEQ Air Permits Division has developed flowcharts for determining applicability of state and federal regulations based on the unit attribute information in a Decision Support System (DSS). These flowcharts can be accessed via the internet at www.tceq.texas.gov/permitting/air/nav/air_supportsys.html. The Air Permits Division staff may also be contacted for assistance at (512) 239-1250.

The attributes for each unit and corresponding index number provide the basis for determining the specific legal citations in an applicable requirement that apply, including emission limitations or standards, monitoring, recordkeeping, and reporting. The rules were found to apply or not apply by using the unit attributes as answers to decision questions found in the flowcharts of the DSS. Some additional attributes indicate which legal citations of a rule apply. The legal citations that apply to each emission unit may be found in the Applicable Requirements Summary table of the draft permit. There may be some entries or rows of units and rules not found in the permit, or if the permit contains a permit shield, repeated in the permit shield area. These are sets of attributes that describe negative applicability, or; in other words, the reason why a potentially applicable requirement does not apply.

If applicability determinations have been made which differ from the available flowcharts, an explanation of the decisions involved in the applicability determination is specified in the column "Changes and Exceptions to RRT." If there were no exceptions to the DSS, then this column has been removed.

The draft permit includes all emission limitations or standards, monitoring, recordkeeping and reporting required by each applicable requirement. If an applicable requirement does not require monitoring, recordkeeping, or reporting, the word "None" will appear in the Applicable Requirements Summary table. If additional periodic monitoring is required for an applicable requirement, it will be explained in detail in the portion of this document entitled "Rationale for Compliance Assurance Monitoring (CAM)/ Periodic Monitoring Methods Selected."

When attributes demonstrate that a unit is not subject to an applicable requirement, the applicant may request a permit shield for those items. The portion of this document entitled "Basis for Applying Permit Shields" specifies which units, if any, have a permit shield.

Operational Flexibility

When an emission unit has multiple operating scenarios, it will have a different index number associated with each operating condition. This means that units are permitted to operate under multiple operating conditions. The applicable requirements for each operating condition are determined by a unique set of unit attributes. For example, a tank may store two different products at different points in time. The tank may, therefore, need to comply with two distinct sets of requirements, depending on the product that is stored. Both sets of requirements are included in the permit, so that the permit holder may store either product in the tank.

Determination of Applicable Requirements

Unit ID	Regulation	Index Number	Basis of Determination*	Changes and Exceptions to DSS**
CT-1	30 TAC Chapter 111, Visible	R111-1	Alternate Opacity Limitation = Not complying with an alternate opacity limit under 30 TAC § 111.113.	None
	Emissions		Vent Source = The source of the vent is not a steam generator fired by solid fossil fuel, oil or a mixture of oil and gas and is not a catalyst regenerator for a fluid bed catalytic cracking unit.	
			Opacity Monitoring System = Optical instrument capable of measuring the opacity of emissions is not installed in the vent or optical instrumentation does not meet the requirements of $\S 111.111(a)(1)(D)$, or the vent stream does not qualify for the exemption in $\S 111.111(a)(3)$.	
			Construction Date = After January 31, 1972	
			Effluent Flow Rate = Effluent flow rate is at least 100,000 actual cubic feet per minute.	
DSL-ULOAD	115, Loading	115C1	Chapter 115 Facility Type = Facility type other than a gasoline terminal, gasoline bulk plant, motor vehicle fuel dispensing facility or marine terminal.	None
	and Unloading of VOC		Alternate Control Requirement (ACR) = No alternate control requirements are being utilized.	
			Product Transferred = Volatile organic compounds other than liquefied petroleum gas and gasoline.	
			Transfer Type = Only unloading.	
			True Vapor Pressure = True vapor pressure less than 0.5 psia.	
ENG-1	40 CFR Part 60, Subpart IIII	60IIII-1	Applicability Date = Stationary CI ICE commenced construction, reconstruction, or modification after 07/11/2005.	None
			Diesel = Diesel fuel is used.	
			Kilowatts = Power rating is greater than or equal to 130 KW and less than or equal to 368 KW.	
			Exemptions = The CI ICE is not exempt due to national security, testing at an engine test cell/stand or as a temporary replacement.	
			Displacement = Displacement is less than 10 liters per cylinder.	
			Service = CI ICE is a fire-pump engine, an emergency engine certified to National Fire Protection Association requirements.	
			Standards = The emergency CI ICE does not meet the standards applicable to non- emergency engines.	
			Commencing = CI ICE was newly constructed after 07/11/2005.	
			Compliance Option = Certified engine according to §60.4211(b)(1).	
			Manufacture Date = Date of manufacture was after 07/01/2006.	
			Model Year = CI ICE was manufactured in model year 2008.	

Unit ID	Regulation	Index Number	Basis of Determination*	Changes and Exceptions to DSS**	
ENG-1	40 CFR Part 63, Subpart ZZZZ	63ZZZZ-1	HAP Source = Any stationary source of hazardous air pollutants that is not a major source as defined in 40 CFR § 63.2.	None	
			Brake HP = Stationary RICE with a brake HP greater than or equal to 100 HP and less than 250 HP.		
			Construction/Reconstruction Date = Commenced construction or reconstruction on or after June 12, 2006.		
GRP- OILRESV	30 TAC Chapter 115, Vent Gas Controls	115B2	Chapter 115 Division = The vent stream does not originate from a source for which another Division in 30 TAC Chapter 115 establishes a control requirement, emission specification, or exemption for that source.	Deleted Related Standard citation [G]§115.122(a)(4) as the vent currently meets an exemption and is not expected to exceed the exemption limit as currently	
			Combustion Exhaust = The vent stream is not from a combustion unit exhaust or the combustion unit is used as a control device for a vent stream originating from a noncombustion source subject to 30 TAC Chapter 115, Subchapter B, Division 2.	operated. If the exemption limit is exceeded, the exemption requirements will be replaced with the applicable control requirements	
			Vent Type = Title 30 TAC Chapter 115, Subchapter B, Vent Gas Control rules are applicable and the vent is not specifically classified under the rule.	Deleted Monitoring/Testing citations [G]§115.125, §115.126(2) and Recordkeeping citation §115.126(2) since Ennis is not using test results to	
			Combined 24-Hour VOC Weight = Combined VOC weight is less than or equal to 100 pounds (45.4 kg).	demonstrate compliance with the exemption limit. Ennis is using engineering calculations to	
			VOC Concentration/Emission Rate @ Max Operating Conditions = The VOC concentration or emission rate is less than the applicable exemption limit at maximum actual operating conditions and the alternate recordkeeping requirements of 30 TAC § 115.126(4) are being selected.	demonstrate compliance.	
GRP-TANKS	40 CFR Part 60, Subpart Kb	60Kb-1	Product Stored = Stored product other than volatile organic liquid or petroleum liquid	None	
GT-1	30 TAC Chapter 117, Utility	117C4	Date Placed in Service = After June 9, 1993 and before the final compliance date in 30 TAC §§ 117.9100 or 117.9120.	The rule citations were determined from an analysis of the rule text and the basis of determination. The	
	Electric	Electric Generation		NOx Monitoring System = Continuous emission monitoring system.	DSS is currently under development for this regulation.
	Generation		Annual Electric Output = Annual electric output is greater than or equal to the product of 2,500 hours and MW rating of the unit.	regulation.	
			MW Rating = MR is greater than or equal to 30 MW.		
			CO Emission Limitation = Title 30 TAC § 117.1310(b)(1)(B).		
			Service Type = Gas turbine (other than peaking service).		
			CO Monitoring System = Continuous emission monitoring system.		
			Fuel Type = Firing natural gas only.		
			Ammonia Use = Ammonia injection is used to control NO _x emissions.		
			NH3 Emission Limitation = Title 30 TAC § 117.1310(b)(2).		
			NH3 Monitoring System = Continuous emission monitoring system.		
			Steam or Water Injection = The stationary gas turbine is not using steam or water injection to comply with the NO_x emission limitations.		

Unit ID	Regulation	Index Number	Basis of Determination*	Changes and Exceptions to DSS**
GT-1	40 CFR Part 60, Subpart GG	60GG-1	Duct Burner = The turbine is part of a combined cycle turbine system not equipped with supplemental heat (duct burner).	None
			NOx Control Method = Selective catalytic reduction.	
			Peak Load Heat Input = Heat Input is greater than 100 MMBtu/hr (107.2 GJ/hr)	
			Construction/Modification Date = On or after October 3, 1982 and before July 8, 2004.	
			NOx Allowance = The owner or operator is not electing to use a NO_x allowance in determining emission limits in 40 CFR § 60.332(a).	
			NOx Monitoring Method = No continuous monitoring system is used.	
			Sulfur Content = Compliance is demonstrated by determining the sulfur content of the fuel.	
			Turbine Cycle = Unit recovers heat from the gas turbine exhaust to heat water or generate steam.	
			Fuel Type Fired = Natural gas meeting the definition in § 60.331(u).	
			Subpart GG Service Type = Electric utility generation.	
			Fuel Supply = Stationary gas turbine is supplied its fuel without intermediate bulk storage.	
			Fuel Monitoring Schedule = Fuel meets the definition of natural gas in 40 CFR § 60.331(u) and is not monitored.	
LUBEOIL-TK	30 TAC Chapter 115, Storage of VOCs	115B1	Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria.	None
			Product Stored = VOC other than crude oil or condensate	
			Storage Capacity = Capacity is less than or equal to 1,000 gallons	
LUBEULDG	30 TAC Chapter 115, Loading	115C1	Chapter 115 Facility Type = Facility type other than a gasoline terminal, gasoline bulk plant, motor vehicle fuel dispensing facility or marine terminal.	None
	and Unloading of VOC	oading of	Alternate Control Requirement (ACR) = No alternate control requirements are being utilized.	
			Product Transferred = Volatile organic compounds other than liquefied petroleum gas and gasoline.	
			Transfer Type = Only unloading.	
			True Vapor Pressure = True vapor pressure less than 0.5 psia.	

Unit ID	Regulation	Index Number	Basis of Determination*	Changes and Exceptions to DSS**
PARTWASH	30 TAC Chapter 115E1 115, Degreasing		Solvent Degreasing Machine Type = Remote reservoir cold solvent cleaning machine.	None
	Processes		Alternate Control Requirement = The TCEQ Executive Director has not approved an alternative control requirement as allowed under 30 TAC § 115.413 or not alternative has been requested.	
			Solvent Vapor Pressure = Solvent vapor pressure is less than or equal to 0.6 psia as measured at 100 degrees Fahrenheit.	
			Solvent Heated = The solvent is not heated to a temperature greater than 120° F.	
			Drainage Area = Area is less than 16 square inches.	
			Disposal in Enclosed Containers = Waste solvent is properly disposed of in enclosed containers.	
SEPARATOR	30 TAC Chapter 115, Water	115B3	Alternate Control Requirement = The executive director (or the EPA Administrator) has not approved an ACR or exemption criteria in accordance with 30 TAC § 115.910.	None
	Separation		Exemption = Any single or multiple compartment VOC water separator which is designed solely to capture stormwater, spills, or exterior surface cleanup waters and is fully covered.	
SOLVCLEAN	30 TAC Chapter 115, Subchapter E, Division 6	115E6	Exemptions = The solvent cleaning operation is located on a property with total actual VOC emissions of less than 3.0 tons per calendar year from all uncontrolled cleaning solvents.	Deleted Related Standard [G]§ 115.463(d) as the solvent cleaning operation currently meets an exemption and is not expected to exceed the exemption limit as currently operated. If the exemption limit is exceeded, the exemption requirements will be replaced with the applicable control requirements
STACK1	30 TAC Chapter 111, Visible Emissions	R111-1	Alternate Opacity Limitation = Not complying with an alternate opacity limit under 30 TAC § 111.113.	None
		Vent Source = The source of the vent is not a steam generator fired by solid fossil fuel, oil or a mixture of oil and gas and is not a catalyst regenerator for a fluid bed catalytic cracking unit.		
			Opacity Monitoring System = Optical instrument capable of measuring the opacity of emissions is not installed in the vent or optical instrumentation does not meet the requirements of § 111.111(a)(1)(D), or the vent stream does not qualify for the exemption in § 111.111(a)(3).	
			Construction Date = After January 31, 1972	
			Effluent Flow Rate = Effluent flow rate is at least 100,000 actual cubic feet per minute.	
TANK2	30 TAC Chapter 115, Storage of VOCs	115B1	Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria.	None
			Product Stored = VOC other than crude oil or condensate	
			Storage Capacity = Capacity is less than or equal to 1,000 gallons	
TANK2	40 CFR Part 60,	60Kb-2	Product Stored = Petroleum liquid (other than petroleum or condensate)	None
	Subpart Kb		Storage Capacity = Capacity is less than 10,600 gallons (40,000 liters)	

Unit ID	Regulation	Index Number	Basis of Determination*	Changes and Exceptions to DSS**
USEDOILLDG	30 TAC Chapter 115, Loading and Unloading of VOC		Chapter 115 Facility Type = Facility type other than a gasoline terminal, gasoline bulk plant, motor vehicle fuel dispensing facility or marine terminal. Alternate Control Requirement (ACR) = No alternate control requirements are being utilized. Product Transferred = Volatile organic compounds other than liquefied petroleum gas and gasoline. Transfer Type = Only loading. True Vapor Pressure = True vapor pressure less than 0.5 psia.	None

^{* -} The "unit attributes" or operating conditions that determine what requirements apply

** - Notes changes made to the automated results from the DSS, and a brief explanation why

NSR Versus Title V FOP

The state of Texas has two Air permitting programs, New Source Review (NSR) and Title V Federal Operating Permits. The two programs are substantially different both in intent and permit content.

NSR is a preconstruction permitting program authorized by the Texas Clean Air Act and Title I of the Federal Clean Air Act (FCAA). The processing of these permits is governed by 30 Texas Administrative Code (TAC) Chapter 116.111. The Title V Federal Operating Program is a federal program authorized under Title V of the FCAA that has been delegated to the state of Texas to administer and is governed by 30 TAC Chapter 122. The major differences between the two permitting programs are listed in the table below:

NSR Permit	Federal Operating Permit(FOP)
Issued Prior to new Construction or modification of an existing facility	For initial permit with application shield, can be issued after operation commences; significant revisions require approval prior to operation.
Authorizes air emissions	Codifies existing applicable requirements, does not authorize new emissions
Ensures issued permits are protective of the environment and human health by conducting a health effects review and that requirement for best available control technology (BACT) is implemented.	Applicable requirements listed in permit are used by the inspectors to ensure proper operation of the site as authorized. Ensures that adequate monitoring is in place to allow compliance determination with the FOP.
Up to two Public notices may be required. Opportunity for public comment and contested case hearings for some authorizations.	One public notice required. Opportunity for public comments. No contested case hearings.
Applies to all point source emissions in the state.	Applies to all major sources and some non-major sources identified by the EPA.
Applies to facilities: a portion of site or individual emission sources	One or multiple FOPs cover the entire site (consists of multiple facilities)
Permits include terms and conditions under which the applicant must construct and operate its various equipment and processes on a facility basis.	Permits include terms and conditions that specify the general operational requirements of the site; and also include codification of all applicable requirements for emission units at the site.
Opportunity for EPA review for Federal Prevention of Significant Deterioration (PSD) and Nonattainment (NA) permits for major sources.	Opportunity for EPA review, Affected states review, and a Public petition period for every FOP.
Permits have a table listing maximum emission limits for pollutants	Permit has an applicable requirements table and Periodic Monitoring (PM) / Compliance Assurance Monitoring (CAM) tables which document applicable monitoring requirements.
Permits can be altered or amended upon application by company. Permits must be issued before construction or modification of facilities can begin.	Permits can be revised through several revision processes, which provide for different levels of public notice and opportunity to comment. Changes that would be significant revisions require that a revised permit be issued before those changes can be operated.
NSR permits are issued independent of FOP requirements.	FOP are independent of NSR permits, but contain a list of all NSR permits incorporated by reference

New Source Review Requirements

Below is a list of the New Source Review (NSR) permits for the permitted area. These NSR permits are incorporated by reference into the operating permit and are enforceable under it. These permits can be found in the main TCEQ file room, located on the first floor of Building E, 12100 Park 35 Circle, Austin, Texas. In addition, many of the permits are accessible online through the link provided below. The Public Education Program may be contacted at 1-800-687-4040 or the Air Permits Division (APD) may be contacted at 1-512-239-1250 for help with any question.

Additionally, the site contains emission units that are permitted by rule under the requirements of 30 TAC Chapter 106, Permits by Rule. Registrations submitted by permittees are also available online through the link provided below. The following table specifies the permits by rule that apply to the site.

The status of air permits, applications, and Permits by Rule (PBR) registrations may be found by performing the appropriate search of the databases located at the following website:

www.tceq.texas.gov/permitting/air/nav/air_status_permits.html

Details on how to search the databases are available in the **Obtaining Permit Documents** section below.

New Source Review Authorization References

Prevention of Significant Deterioration (PSD) Permits			
PSD Permit No.: PSDTX927 Issuance Date: 07/24/2015			
Title 30 TAC Chapter 116 Permits, Special Permits, and Other Authorizations (Other Than Permits By Rule, PSD Permits, or NA Permits) for the Application Area.			
Authorization No.: 40363	Issuance Date: 07/24/2015		
Permits By Rule (30 TAC Chapter 106) for the	Application Area		
Number: 106.102	Version No./Date: 09/04/2000		
Number: 106.122	Version No./Date: 09/04/2000		
Number: 106.227	Version No./Date: 09/04/2000		
Number: 106.261	Version No./Date: 11/01/2003		
Number: 106.262	Version No./Date: 11/01/2003		
Number: 106.263	Version No./Date: 11/01/2001		
Number: 106.265	Version No./Date: 09/04/2000		
Number: 106.433	Version No./Date: 09/04/2000		
Number: 106.454	Version No./Date: 11/01/2001		
Number: 106.472	Version No./Date: 09/04/2000		
Number: 106.511	Version No./Date: 09/04/2000		
Number: 106.532	Version No./Date: 09/04/2000		

Emission Units and Emission Points

In air permitting terminology, any source capable of generating emissions (for example, an engine or a sandblasting area) is called an Emission Unit. For purposes of Title V, emission units are specifically listed in the operating permit when they have applicable requirements other than New Source Review (NSR), or when they are listed in the permit shield table.

The actual physical location where the emissions enter the atmosphere (for example, an engine stack or a sand-blasting yard) is called an emission point. For New Source Review preconstruction permitting purposes, every emission unit has an associated emission point. Emission limits are listed in an NSR permit, associated with an emission point. This list of emission points and emission limits per pollutant is commonly referred to as the "Maximum Allowable Emission Rate Table", or "MAERT" for short. Specifically, the MAERT lists the Emission Point Number (EPN) that identifies the emission point, followed immediately by the Source Name, identifying the emission unit that is the source of those emissions on this table.

Thus, by reference, an emission unit in a Title V operating permit is linked by reference number to an NSR authorization, and its related emission point.

Monitoring Sufficiency

Federal and state rules, 40 CFR § 70.6(a)(3)(i)(B) and 30 TAC § 122.142(c) respectively, require that each federal operating permit include additional monitoring for applicable requirements that lack periodic or instrumental monitoring (which may include recordkeeping that serves as monitoring) that yields reliable data from a relevant time period that are representative of the emission unit's compliance with the applicable emission limitation or standard. Furthermore, the federal operating permit must include compliance assurance monitoring (CAM) requirements for emission sources that meet the applicability criteria of 40 CFR Part 64 in accordance with 40 CFR § 70.6(a)(3)(i)(A) and 30 TAC § 122.604(b).

With the exception of any emission units listed in the Periodic Monitoring or CAM Summaries in the FOP, the TCEQ Executive Director has determined that the permit contains sufficient monitoring, testing, recordkeeping, and reporting requirements that assure compliance with the applicable requirements. If applicable, each emission unit that requires additional monitoring in the form of periodic monitoring or CAM is described in further detail under the Rationale for CAM/PM Methods Selected section following this paragraph.

Rationale for Compliance Assurance Monitoring (CAM)/ Periodic Monitoring Methods Selected

Compliance Assurance Monitoring (CAM):

Compliance Assurance Monitoring (CAM) is a federal monitoring program established under Title 40 Code of Federal Regulations Part 64 (40 CFR Part 64).

Emission units are subject to CAM requirements if they meet the following criteria:

- 1. the emission unit is subject to an emission limitation or standard for an air pollutant (or surrogate thereof) in an applicable requirement;
- 2. the emission unit uses a control device to achieve compliance with the emission limitation or standard specified in the applicable requirement; and
- 3. the emission unit has the pre-control device potential to emit greater than or equal to the amount in tons per year for a site to be classified as a major source.

The following table(s) identify the emission unit(s) that are subject to CAM:

Unit/Group/Process Information		
ID No.: GT-1		
Control Device ID No.: SCR	Control Device Type: Selective Catalytic Reduction (SCR)	
Applicable Regulatory Requirement		
Name: 40 CFR Part 60, Subpart GG	SOP Index No.: 60GG-1	
Pollutant: NO _X Main Standard: § 60.332(a)(1)		
Monitoring Information		
Indicator: NOx concentration		
Minimum Frequency: 4 times an hour		
Averaging Period: hourly		
Deviation Limit: A 4-operating hour rolling average of NOx concentration greater than the value calculated by §60.332(a)(1) shall be reported as a deviation		
Basis of CAM: It is widely practiced and accepted to calibrate and use a portable analyzer or NOx CEMS/PEMS to measure NOx concentration with procedures such as EPA Test Method 7. The measured concentration along with stack flow rate or AP-42 factors and fuel consumption records may be used to demonstrate compliance with an underlying emission limit or standard. Additionally, measuring the NOx concentration is provided as a monitoring option for any		

control device because an increase in NOx concentration may be indicative of the control device performance. Outlet

NOx concentration has been used as an indicator in many federal and state rules.

Periodic Monitoring:

The Federal Clean Air Act requires that each federal operating permit include monitoring sufficient to assure compliance with the terms and conditions of the permit. Most of the emission limits and standards applicable to emission units at Title V sources include adequate monitoring to show that the units meet the limits and standards. For those requirements that do not include monitoring, or where the monitoring is not sufficient to assure compliance, the federal operating permit must include such monitoring for the emission units affected. The following emission units are subject to periodic monitoring requirements because the emission units are subject to an emission limitation or standard for an air pollutant (or surrogate thereof) in an applicable requirement that does not already require monitoring, or the monitoring for the applicable requirement is not sufficient to assure compliance:

Unit/Group/Process Information				
ID No.: CT-1				
Control Device ID No.: N/A	Control Device Type: N/A			
Applicable Regulatory Requirement				
Name: 30 TAC Chapter 111, Visible Emissions SOP Index No.: R111-1				
Pollutant: Opacity Main Standard: § 111.111(a)(1)(C)				
Monitoring Information				
Indicator: Visible Emissions				
Minimum Frequency: Once per calendar quarter				
Averaging Period: Six minutes				
Deviation Limit: Maximum opacity of 15% (based on the limit in 30 TAC § 111.111(a)(1)(C)) except during periods defined in 30 TAC § 111.111(a)(1)(E).				

Basis of monitoring:

The option to perform opacity readings or visible emissions to demonstrate compliance is consistent with EPA Reference Test Method 9 and 22. Opacity and visible emissions have been used as an indicator of particulate emissions in many federal rules including 40 CFR Part 60, Subpart F and Subpart HH. In addition, use of these indicators is consistent with the EPA's "Compliance Assurance Monitoring (CAM) Technical Guidance Document" (August 1998). Monitoring specifications and procedures for the opacity are consistent with federal requirements and include the EPA's Test Method 9 for determining opacity by visual observations and the requirements of 40 CFR § 60.13 for a continuous opacity monitoring system (COMS). The monitoring specifications and procedures for the visible emissions monitoring are similar to "EPA Reference Method 22" procedures.

Unit/Group/Process Information			
ID No.: STACK1			
Control Device ID No.: N/A	Control Device Type: N/A		
Applicable Regulatory Requirement			
Name: 30 TAC Chapter 111, Visible Emissions SOP Index No.: R111-1			
Pollutant: Opacity Main Standard: § 111.111(a)(1)(C)			
Monitoring Information			
Indicator: Fuel Type			
Minimum Frequency: Annually			
Averaging Period: n/a			
Deviation Limit: Fuel burned is limited to pipeline-quality natural gas			
Basis of monitoring: Industry has demonstrated through performance tests and historical data that opacity and particulate matter standards are consistently met when combustion units fire natural gas only.			

Obtaining Permit Documents

The New Source Review Authorization References table in the FOP specifies all NSR authorizations that apply at the permit area covered by the FOP. Individual NSR permitting files are located in the TCEQ Central File Room (TCEQ Main Campus located at 12100 Park 35 Circle, Austin, Texas, 78753, Building E, Room 103). They can also be obtained electronically from TCEQ's Central File Room Online (https://www.tceq.texas.gov/goto/cfr-online). Guidance documents that describe how to search electronic records, including Permits by Rule (PBRs) or NSR permits incorporated by reference into an FOP, archived in the Central File Room server are available at https://www.tceq.texas.gov/permitting/air/nav/air_status_permits.html

All current PBRs are contained in Chapter 106 and can be viewed at the following website:

https://www.tceq.texas.gov/permitting/air/permitbyrule/air_pbr_index.html

Previous versions of 30 TAC Chapter 106 PBRs may be viewed at the following website:

www.tceq.texas.gov/permitting/air/permitbyrule/historical rules/old106list/index106.html

Historical Standard Exemption lists may be viewed at the following website:

www.tceq.texas.gov/permitting/air/permitbyrule/historical_rules/oldselist/se_index.html

Additional information concerning PBRs is available on the TCEQ website:

https://www.tceq.texas.gov/permitting/air/nav/air pbr.html

Compliance Review

Compliance History Review	
1. In accordance with 30 TAC Chapter 60, the compliance history was reviewed on	6/18/18
Site rating: <u>0.00 / High</u> Company rating: <u>0.00 / High</u>	
(High < 0.10; Satisfactory ≥ 0.10 and ≤ 55; Unsatisfactory > 55)	
2. Has the permit changed on the basis of the compliance history or site/company rating?	No
Site/Permit Area Compliance Status Review	
1. Were there any out-of-compliance units listed on Form OP-ACPS?	No
2. Is a compliance plan and schedule included in the permit?	

Available Unit Attribute Forms

- OP-UA1 Miscellaneous and Generic Unit Attributes
- OP-UA2 Stationary Reciprocating Internal Combustion Engine Attributes
- OP-UA3 Storage Tank/Vessel Attributes
- OP-UA4 Loading/Unloading Operations Attributes
- OP-UA5 Process Heater/Furnace Attributes
- OP-UA6 Boiler/Steam Generator/Steam Generating Unit Attributes
- OP-UA7 Flare Attributes
- OP-UA8 Coal Preparation Plant Attributes
- OP-UA9 Nonmetallic Mineral Process Plant Attributes
- OP-UA10 Gas Sweetening/Sulfur Recovery Unit Attributes
- **OP-UA11 Stationary Turbine Attributes**
- OP-UA12 Fugitive Emission Unit Attributes
- OP-UA13 Industrial Process Cooling Tower Attributes
- OP-UA14 Water Separator Attributes
- OP-UA15 Emission Point/Stationary Vent/Distillation Operation/Process Vent Attributes
- OP-UA16 Solvent Degreasing Machine Attributes
- OP-UA17 Distillation Unit Attributes

- OP-UA18 Surface Coating Operations Attributes
- OP-UA19 Wastewater Unit Attributes
- OP-UA20 Asphalt Operations Attributes
- OP-UA21 Grain Elevator Attributes
- OP-UA22 Printing Attributes
- OP-UA24 Wool Fiberglass Insulation Manufacturing Plant Attributes
- OP-UA25 Synthetic Fiber Production Attributes
- OP-UA26 Electroplating and Anodizing Unit Attributes
- OP-UA27 Nitric Acid Manufacturing Attributes
- OP-UA28 Polymer Manufacturing Attributes
- OP-UA29 Glass Manufacturing Unit Attributes
- OP-UA30 Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mill Attributes
- OP-UA31 Lead Smelting Attributes
- OP-UA32 Copper and Zinc Smelting/Brass and Bronze Production Attributes
- OP-UA33 Metallic Mineral Processing Plant Attributes
- OP-UA34 Pharmaceutical Manufacturing
- OP-UA35 Incinerator Attributes
- OP-UA36 Steel Plant Unit Attributes
- OP-UA37 Basic Oxygen Process Furnace Unit Attributes
- OP-UA38 Lead-Acid Battery Manufacturing Plant Attributes
- OP-UA39 Sterilization Source Attributes
- OP-UA40 Ferroalloy Production Facility Attributes
- OP-UA41 Dry Cleaning Facility Attributes
- OP-UA42 Phosphate Fertilizer Manufacturing Attributes
- OP-UA43 Sulfuric Acid Production Attributes
- OP-UA44 Municipal Solid Waste Landfill/Waste Disposal Site Attributes
- OP-UA45 Surface Impoundment Attributes
- OP-UA46 Epoxy Resins and Non-Nylon Polyamides Production Attributes
- OP-UA47 Ship Building and Ship Repair Unit Attributes
- OP-UA48 Air Oxidation Unit Process Attributes
- OP-UA49 Vacuum-Producing System Attributes
- OP-UA50 Fluid Catalytic Cracking Unit Catalyst Regenerator/Fuel Gas Combustion Device/Claus Sulfur Recovery Plant Attributes
- OP-UA51 Drver/Kiln/Oven Attributes
- OP-UA52 Closed Vent Systems and Control Devices
- OP-UA53 Beryllium Processing Attributes
- OP-UA54 Mercury Chlor-Alkali Cell Attributes
- OP-UA55 Transfer System Attributes
- OP-UA56 Vinyl Chloride Process Attributes
- OP-UA57 Cleaning/Depainting Operation Attributes
- **OP-UA58 Treatment Process Attributes**
- OP-UA59 Coke By-Product Recovery Plant Attributes
- OP-UA60 Chemical Manufacturing Process Unit Attributes
- OP-UA61 Pulp, Paper, or Paperboard Producing Process Attributes
- OP-UA62 Glycol Dehydration Unit Attributes
- OP-UA63 Vegetable Oil Production Attributes